

SOS 4.2 SphereCasting Enhancements

A SphereCast is an SOS presentation done simultaneously at multiple sites by a single presenter, via the Internet. Many sites can receive the SphereCast, but only one site is the host. There are two components to a SphereCast: remote control of a presentation on an SOS system, and a live video (or audio) lecture of the presenter that accompanies the SOS presentation.

- **Support for interactive presentation features**

Prior to the 4.2 release, only basic sphere controls used on the host, such as animation, orientation, and pointing using the red dot were displayed on remote SOS systems.

With the 4.2 release, all sphere controls available on the iPad interface may be used in a SphereCast on a host sphere and displayed on the remote spheres:

- **Layers**

Some datasets are associated with additional layers that are included with them in the playlist. For example, Red Mars comes with 3 layers that consist of different sets of labels for features on the Martian surface. Under the Layers screen on the iPad App, there are controls for each layer, including On/Off, Transparency, and Delete. When these controls are changed on the host, the remote spheres are also changed correspondingly.

- **Arbitrary Overlays**

The iPad interface allows overlaying a selected dataset on top of the currently displayed dataset. This is done by selecting and holding a dataset name in the current playlist. Typically the chosen dataset's transparency is immediately changed by presenter so the underlying dataset will show through it. These actions made on the host are now also displayed on the remote systems.

- **Overlay Button**

The Presentation screen on the iPad App has an Overlays button used to select from a set of static overlays for placement on top of a displayed dataset. As the overlays are selected and displayed on the host, the remote systems will now display the same overlays. Host changes made on the layer settings for the overlays, are correspondingly made on the remote systems.

- **Annotation Tab**

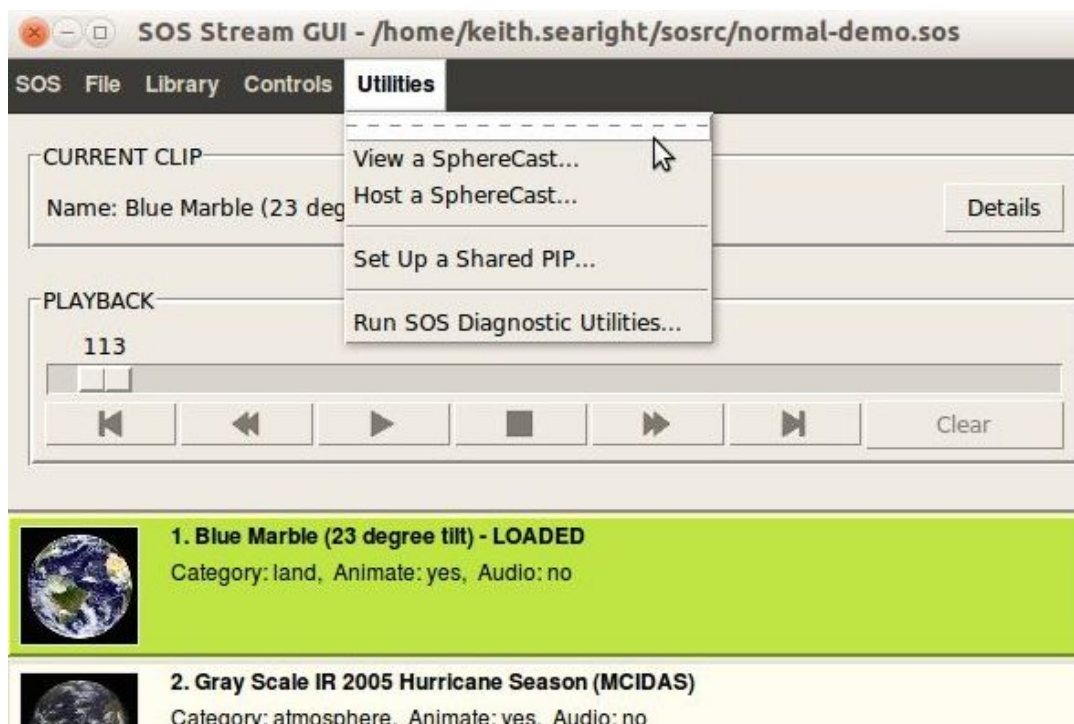
- **In Point mode**, the white arrow pointer on the host is now shown on the remote spheres. Icons on the host are also displayed on remote

systems, including the specific graphic, size, and interactive placement/removal.

- In Draw mode, the yellow marker pointer on the host is now shown on the remote spheres. Lines drawn on the host are also displayed remotely, including the selected color and width options. **Note:** *lines should not be drawn on the host sphere when its dataset is animating, because the positioning of the lines on the remote spheres can be shifted slightly.*
- Zoom Tab
The magnifying glass when used on a host is now shown on the remote spheres. Zoom setting changes made on host are also made on the remote systems, including window size, magnification level, and position on the globe.

- **Improvements to user interfaces used for SphereCasting**

SphereCasting is launched from the SOS Stream GUI using the dropdown menu that appears when selecting Utilities on the menu bar. In previous versions of SOS, this launched only viewing of a SphereCast, while hosting one required running an external script. In the 4.2 version, there are now separate entries to Host or View a Spherecast (see screenshot).



The SphereCast dialog box has also been enhanced in a number of ways for this release (see screenshot).

SOS SphereCast Viewer

SphereCast Server Account

Username

Password

☒ Hide Password

Server

SphereCast Connection

☒ Live SphereCast

☐ Test SphereCast

Delay (0-20 sec)

Connect As Viewer Disconnect Exit

- There is now error checking on the username and password fields, such that an error message will pop up if the text entered is missing or invalid. The dialog will also issue an error message if it is unable to connect to the server used to broadcast message to support the SphereCast. The Disconnect button remains grayed out unless the SphereCast connection was successful.
- A new control to set a delay time for a SphereCast has been added. This feature has been available in SphereCasting before, but was not accessible from the user interface. The main purpose of the delay time setting is to provide a way to synchronize the sphere presentation with the audio/video feed, which typically has a lag going from the host site to viewing locations.
- A final addition that will be useful for a more limited audience is that the dialog box now uses the \$SOS_ROOT environment variable to find the correct version of the SphereCast code. This is a useful capability if the system running the SphereCast has more than one version of the SOS software installed.